

IN THE CLAIMS:

Please cancel Claims 62 to 71 and substitute Claims 72 to 75 therefor, as follows:

1. to 71. (Cancelled).

72. (New) An ink jet recording system including a plurality of ink jet heads for performing color recording with an ink jet printer, recording being made with a plurality of ink tanks being mounted to the ink jet heads, each of the ink tanks storing ink to be discharged corresponding to each of ink jet heads,

wherein a solid semiconductor element is arranged in each of said plurality of ink tanks in a floated state on an ink liquid surface or in the liquid,

wherein the ink jet printer further includes communication means for performing wireless communication by electromagnetic wave with the solid semiconductor element arranged in each of the plurality of ink tanks,

wherein each of the solid semiconductor elements includes receiving and energy converting means having a coil which receives a signal of the electromagnetic wave from said communication means in a non-contact manner and which converts the electromagnetic wave into electric power by electromagnetic induction, information acquiring means for acquiring information as to at least an ink remaining amount in the ink tanks in which the solid semiconductor elements are arranged, information storing means for storing information, discrimination means for comparing information with information

stored in said information storing means, and information transmitting means for transmitting information,

wherein each of said solid semiconductor elements has a resonance frequency different from each other by changing a winding number or a length of the coil,

wherein when a signal of electromagnetic wave having a frequency equal to the resonance frequency of a predetermined one of said solid semiconductor elements is transmitted by said communication means, said receiving and energy converting means converts the electromagnetic wave into electric power by electromagnetic induction to activate said information acquiring means, said information storing means, said discrimination means and said information transmitting means by said electric power,

wherein only the solid semiconductor element corresponding to said resonance frequency acquires by said information acquiring means information as to at least an ink remaining amount in the ink tank in which the solid semiconductor element is arranged, compares by said discrimination means the acquired information with the information of said storing information means to discriminate whether a transmission is needed, and transmits by said information transmitting means to outside of the ink tank in a case where the need for information transmission is discriminated.

73. (New) An ink jet recording system according to Claim 72, wherein said solid semiconductor element has a hollow portion to float at a predetermined position on said ink surface or in the ink, a gravity center of the solid semiconductor element floated in

the liquid is positioned below a center of the element, and a metacenter of the element is constantly positioned above the gravity center of the solid semiconductor element.

74. (New) An ink jet recording system including a plurality of ink jet heads for performing color recording with an ink jet printer, recording being made with a plurality of ink tanks being mounted to the ink jet heads, each of the ink tanks storing ink to be discharged corresponding to each of ink jet heads,

wherein a solid semiconductor element is arranged in each of said plurality of ink tanks in a floated state on an ink liquid surface or in the liquid,

wherein the ink jet printer further includes communication means for performing wireless communication by electromagnetic wave with the solid semiconductor element arranged in each of the plurality of ink tanks,

wherein each of the solid semiconductor elements includes receiving and energy converting means having a coil which receives a signal of the electromagnetic wave from said communication means in a non-contact manner and which converts the electromagnetic wave into electric power by electromagnetic induction, information acquiring means for acquiring information as to at least an ink remaining amount in the ink tanks in which the solid semiconductor elements are arranged, information storing means for storing information, discrimination means for comparing information with information stored in said information storing means, and information transmitting means for transmitting information,

wherein each of said plurality of solid semiconductor elements has a discrimination ID different from each other, and wherein said communication means transmits a discrimination ID,

wherein only the solid semiconductor element having a discrimination ID corresponding to the discrimination ID transmitted by said communication means receives information subsequent to transmission of the discrimination ID by said communication means, and wherein said discriminated solid semiconductor element acquires by said information acquiring means information as to at least an ink remaining amount in the ink tank where the solid semiconductor element is arranged, compares by said discrimination means said acquired information with the information of said storing information means to discriminate whether a transmission is needed, and transmits by said information transmitting means to outside of the ink tank in a case where the need for information transmission is discriminated.

75. (New) An ink jet recording system according to Claim 74, wherein said solid semiconductor element has a hollow portion to float at a predetermined position on said ink surface or in the ink, a gravity center of the solid semiconductor element floated in the liquid is positioned below a center of the element, and a metacenter of the element is constantly positioned above the gravity center of the solid semiconductor element.